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FEB 06 2002

TECH CENTER 1600/2900

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/854,816

DATE: 12/10/2001

TIME: 16:21:05

Input Set : N:\paola\09854816.txt

Output Set: N:\CRF3\12102001\I854816.raw

## SEQUENCE LISTING

ENTERED

## 3 (1) GENERAL INFORMATION:

5 (i) APPLICANT: Andrew C. Braisted

6 J. Kevin Judice

7 Robert S. McDowell

8 J. Christopher Phelan

9 Melissa A. Starovasnik

10 James A. Wells

12 (ii) TITLE OF INVENTION: Constrained Helical Peptides and Methods of  
13 Making Same

15 (iii) NUMBER OF SEQUENCES: 113

17 (iv) CORRESPONDENCE ADDRESS:

18 (A) ADDRESSEE: Genentech, Inc.

19 (B) STREET: 1 DNA Way

20 (C) CITY: South San Francisco

21 (D) STATE: California

22 (E) COUNTRY: USA

23 (F) ZIP: 94080

25 (v) COMPUTER READABLE FORM:

26 (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

27 (B) COMPUTER: IBM PC compatible

28 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

29 (D) SOFTWARE: WinPatin (Genentech)

31 (vi) CURRENT APPLICATION DATA:

C--&gt; 32 (A) APPLICATION NUMBER: US/09/854,816

C--&gt; 33 (B) FILING DATE: 15-May-2001

34 (C) CLASSIFICATION:

36 (vii) PRIOR APPLICATION DATA:

37 (A) APPLICATION NUMBER: 08/965,056

38 (B) FILING DATE: 1997-11-05

40 (viii) ATTORNEY/AGENT INFORMATION:

41 (A) NAME: Torchia, PhD., Timothy E.

42 (B) REGISTRATION NUMBER: 36,700

43 (C) REFERENCE/DOCKET NUMBER: P1005R2

45 (ix) TELECOMMUNICATION INFORMATION:

46 (A) TELEPHONE: 650/225-8674

47 (B) TELEFAX: 650/952-9881

48 (2) INFORMATION FOR SEQ ID NO: 1:

50 (i) SEQUENCE CHARACTERISTICS:

51 (A) LENGTH: 36 amino acids

52 (B) TYPE: Amino Acid

53 (D) TOPOLOGY: Linear

W--&gt; 54 (ii) MOLECULE TYPE: DPl78

56 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

58 Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln

59 1 5 10 15

61 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala

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```

62          20          25          30
64 Ser Leu Trp Asn Trp Phe
65          35  36
67 (2) INFORMATION FOR SEQ ID NO: 2:
68 (i) SEQUENCE CHARACTERISTICS:
69 (A) LENGTH: 27 amino acids
70 (B) TYPE: Amino Acid
71 (D) TOPOLOGY: Linear
72 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
73 Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln
74 1          5          10          15
75 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
76 20          25          27
77 (2) INFORMATION FOR SEQ ID NO: 3:
78 (i) SEQUENCE CHARACTERISTICS:
79 (A) LENGTH: 27 amino acids
80 (B) TYPE: Amino Acid
81 (D) TOPOLOGY: Linear
82 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
W--> 91 Tyr Thr Ser Leu Ile His Ser Leu Ile Xaa Glu Ser Gln Asn Gln
92 1          5          10          15
W--> 94 Gln Xaa Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
95 20          25          27
96 (2) INFORMATION FOR SEQ ID NO: 4:
97 (i) SEQUENCE CHARACTERISTICS:
98 (A) LENGTH: 27 amino acids
99 (B) TYPE: Amino Acid
100 (D) TOPOLOGY: Linear
101 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
W--> 106 Tyr Thr Xaa Leu Ile His Ser Leu Ile Xaa Glu Ser Gln Asn Gln
107 1          5          10          15
W--> 109 Gln Xaa Lys Asn Glu Gln Glu Leu Xaa Glu Leu Asp
110 20          25          27
111 (2) INFORMATION FOR SEQ ID NO: 5:
112 (i) SEQUENCE CHARACTERISTICS:
113 (A) LENGTH: 27 amino acids
114 (B) TYPE: Amino Acid
115 (D) TOPOLOGY: Linear
116 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
W--> 121 Tyr Thr Ser Leu Ile His Ser Xaa Ile Glu Glu Ser Gln Asn Xaa
122 1          5          10          15
123 Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
124 20          25          27
125 (2) INFORMATION FOR SEQ ID NO: 6:
126 (i) SEQUENCE CHARACTERISTICS:
127 (A) LENGTH: 269 amino acids
128 (B) TYPE: Amino Acid
129 (D) TOPOLOGY: Linear
130 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

```

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```

136 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
137 1 5 10 15
139 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
140 20 25 30
W--> 142 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Xaa
143 35 40 45
145 Ile Gly Ala Met Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr
146 50 55 60
148 Met Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu
149 65 70 75
151 Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile
152 80 85 90
154 Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys
155 95 100 105
157 Gln Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp
158 110 115 120
160 Gln Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys
161 125 130 135
163 Thr Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu
164 140 145 150
W--> 166 Xaa Xaa Ile Trp Xaa Asn Met Thr Trp Met Glu Trp Glu Arg Glu
167 155 160 165
W--> 169 Ile Asp Asn Tyr Thr Xaa Leu Ile Tyr Thr Leu Ile Glu Glu Ser
170 170 175 180
172 Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
173 185 190 195
W--> 175 Lys Trp Ala Ser Leu Trp Asn Trp Phe Xaa Ile Thr Asn Trp Leu
176 200 205 210
178 Trp Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val Gly
179 215 220 225
181 Leu Arg Ile Val Phe Ala Val Leu Ser Ile Val Asn Arg Val Arg
182 230 235 240
W--> 184 Gln Gly Tyr Ser Pro Leu Ser Phe Gln Thr Xaa Leu Pro Ala Pro
185 245 250 255
187 Arg Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly
188 260 265 269
190 (2) INFORMATION FOR SEQ ID NO: 7:
192 (i) SEQUENCE CHARACTERISTICS:
193 (A) LENGTH: 268 amino acids
194 (B) TYPE: Amino Acid
195 (D) TOPOLOGY: Linear
W--> 196 (ii) MOLECULE TYPE: HIV-JRCSE
198 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
200 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
201 1 5 10 15
203 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
204 20 25 30
206 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Ile
207 35 40 45

```

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```

209 Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
210                               50                               55                               60
212 Gly Ala Arg Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu
213                               65                               70                               75
215 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
216                               80                               85                               90
218 Ala Gln Gln His Met Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
219                               95                               100                              105
221 Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
222                               110                              115                              120
224 Gln Leu Met Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr
225                               125                              130                              135
227 Thr Ala Val Pro Trp Asn Thr Ser Trp Ser Asn Lys Ser Leu Asp
228                               140                              145                              150
230 Ser Ile Trp Asn Asn Met Thr Trp Met Glu Trp Glu Lys Glu Ile
231                               155                              160                              165
233 Glu Asn Tyr Thr Asn Thr Ile Tyr Thr Leu Ile Glu Glu Ser Gln
234                               170                              175                              180
236 Ile Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys
237                               185                              190                              195
239 Trp Ala Ser Leu Trp Asn Trp Phe Gly Ile Thr Lys Trp Leu Trp
240                               200                              205                              210
242 Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Ile Gly Leu
243                               215                              220                              225
245 Arg Ile Val Phe Ser Val Leu Ser Ile Val Asn Arg Val Arg Gln
246                               230                              235                              240
248 Gly Tyr Ser Pro Leu Ser Phe Gln Thr Leu Leu Pro Ala Thr Arg
249                               245                              250                              255
251 Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly
252                               260                              265                              268

```

254 (2) INFORMATION FOR SEQ ID NO: 8:

256 (i) SEQUENCE CHARACTERISTICS:

257 (A) LENGTH: 268 amino acids

258 (B) TYPE: Amino Acid

259 (D) TOPOLOGY: Linear

261 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

```

263 Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
264 1                               5                               10                               15
266 Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
267                               20                               25                               30
269 Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Ile
270                               35                               40                               45
272 Gly Ala Val Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
273                               50                               55                               60
275 Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Leu Leu Leu
276                               65                               70                               75
278 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
279                               80                               85                               90
281 Ala Gln Gln Arg Met Leu Gln Leu Thr Val Trp Gly Ile Lys Gln

```

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282		95		100		105
284	Leu Gln Ala Arg Val	Leu Ala Val Glu Arg Tyr Leu Gly Asp Gln				
285		110		115		120
287	Gln Leu Leu Gly Ile	Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr				
288		125		130		135
290	Thr Ala Val Pro Trp	Asn Ala Ser Trp Ser Asn Lys Ser Leu Asp				
291		140		145		150
293	Arg Ile Trp Asn Asn	Met Thr Trp Met Glu Trp Glu Arg Glu Ile				
294		155		160		165
296	Asp Asn Tyr Thr Ser	Glu Ile Tyr Thr Leu Ile Glu Glu Ser Gln				
297		170		175		180
299	Asn Gln Gln Glu Lys	Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys				
300		185		190		195
302	Trp Ala Ser Leu Trp	Asn Trp Phe Asp Ile Thr Lys Trp Leu Trp				
303		200		205		210
305	Tyr Ile Lys Ile Phe	Ile Met Ile Val Gly Gly Leu Val Gly Leu				
306		215		220		225
308	Arg Leu Val Phe Thr	Val Leu Ser Ile Val Asn Arg Val Arg Gln				
309		230		235		240
311	Gly Tyr Ser Pro Leu	Ser Phe Gln Thr Leu Leu Pro Ala Pro Arg				
312		245		250		255
314	Gly Pro Asp Arg Pro	Glu Gly Ile Glu Glu Glu Gly Gly				
315		260		265		268

317 (2) INFORMATION FOR SEQ ID NO: 9:

319 (i) SEQUENCE CHARACTERISTICS:

320 (A) LENGTH: 268 amino acids

321 (B) TYPE: Amino Acid

322 (D) TOPOLOGY: Linear

324 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

326	Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys
327	1 5 10 15
329	Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Arg
330	20 25 30
332	Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Gly Leu
333	35 40 45
335	Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met
336	50 55 60
338	Gly Ala Arg Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu
339	65 70 75
341	Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
342	80 85 90
344	Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
345	95 100 105
347	Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Arg Asp Gln
348	110 115 120
350	Gln Leu Leu Glu Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr
351	125 130 135
353	Thr Thr Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu Asn
354	140 145 150

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/854,816

DATE: 12/10/2001

TIME: 16:21:06

Input Set : N:\paola\09854816.txt

Output Set: N:\CRF3\12102001\I854816.raw

L:32 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:33 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:54 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1  
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:196 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7  
L:1238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:1247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:1967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35  
L:1976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35  
L:2000 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35  
L:2003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35  
L:2012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35  
L:3212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58  
L:3239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59  
L:3266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60  
L:3404 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3449 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67  
L:3890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76  
L:3893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76  
L:3905 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76  
L:3914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76  
L:4268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84  
L:4274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84  
L:4292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84  
L:4316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84  
L:4676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92  
L:4700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93  
L:4757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96  
L:4799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96  
L:5078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102  
L:5090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5096 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5099 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103

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L:5105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103  
L:5120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103